

PATENT ABSTRACTS OF JAPAN

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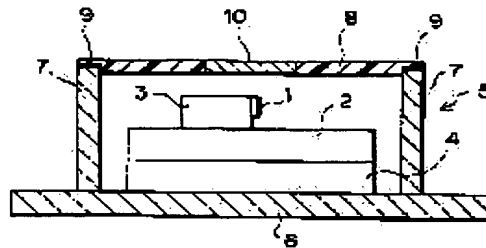
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(57)Abstract:

PROBLEM TO BE SOLVED: To prevent lowering of a laser output caused by the pressure difference between the internal pressure and the external pressure of a case, by enclosing a semiconductor laser in a package case which uses for a part of its walls a gas separating film having the property of causing a gas such as a nitrogen, oxygen, etc., to permeate through.

SOLUTION: A semiconductor laser chip 1 is supported by a supporting member 3 fitted on to a base plate 2. The base plate 2 is fitted to the bottom plate 6 of a package case 5 through a Peltier element 4, and a peripheral wall 7 is fixed to the bottom plate 6 surrounding the base plate 2. A package cap 8 is glued to the upper end of the peripheral wall 7 with an adhesive agent 9, and the semiconductor laser is enclosed in the package case. The whole of the package cap 8 is composed of a hydrophobic gas separating film having a property of not causing steam and dust to permeate through and causing nitrogen and oxygen gases to permeate through. Accordingly, it becomes possible to prevent condensed dew inside the package case 5, and to prevent generation of a pressure difference between the inside and outside of the package case 5, without spoiling the function of preventing dust entry into the package case.



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